

IN THE CLAIMS:

Claim 1 has been amended as follows:

1. (Currently Amended) A medical system architecture for interactive transmission and progressive representation of compressed image data of multi-component images, comprising:

at least one imaging modality that acquires image data from a subject representing examination images ~~comprising~~ each having a slice thickness within the subject from which said image data are obtained;

for each imaging modality, a computer workstation associated therewith that processes the image data acquired by the associated imaging modality;

a communication network in communication with said computer workstation that transfers said examination images, after processing in the computer workstation, to locations remote from said computer workstation;

a storage device in communication with said communication network that stores said examination images;

at least one further workstation in communication with said communication network that post-processes the examination images processed in said computer workstation;

a compression device in communication with said computer network that compresses and organizes the image data representing said examination images and stores the compressed data in packets, as packetized image data, with a parameter linked to the respective

packets, defining permissible access to the respective packets, that specifies a slice thickness progression; and

a decompression device in communication with said communication network that decompresses the packetized image data packet-by-packet dependent on a request from said further workstation and dependent on said parameter, to cause a multi-component images image to be generated at said further workstation composed of a plurality of said examination images, with progressive parameters with the respective examination images in said multi-component images having a selectively variable slice thickness, along said slice thickness progression, that is selected dependent on said parameter .

2. (Previously Presented) A medical system architecture as claimed in claim 1 wherein said compression device generates further parameters respectively linked with said packets in addition to said parameter specifying slice thickness, selected from the group consisting of a parameter specifying an image resolution level, a parameter specifying an image quality level, a parameter specifying a region of interest, and a parameter specifying a component index, and wherein said decompression device employs said parameters to generate said multi-component images with at least one of a progressive image resolution, progressive image quality levels, and consistent region of interest presentation, respectively.

3. (Previously Presented) A medical system architecture as claimed in claim 1 wherein said compression device generates supplementary information and requests and transmits said supplementary information and requests to said further workstation together with the compression packetized image data.

4. (Previously Presented) A medical system architecture as claimed in claim 1 wherein said compression device transmits a total quantity of data in compressed state, with said parameters, to said further workstation.

5. (Previously Presented) A medical system architecture as claimed in claim 1 wherein said compression device transmits an entire file for an image in compressed state to said further workstation.

6. (Previously Presented) A medical system architecture as claimed in claim 1 wherein said compression device transmits information identifying packets that have already been sent and parameters that have already been transmitted in advance to said further workstation.

7. (Previously Presented) A medical system architecture as claimed in claim 1 wherein said compression device generates and communicates a message to said further workstation after conclusion of transferring a consistent set of said image data.

8. (Previously Presented) A medical system architecture as claimed in claim 7 wherein said compression device generates and transmits a render request as said message.

9. (Previously Presented) A medical system architecture as claimed in claim 7 wherein said compression device generates and transmits a storage recommendation as said message.

10. (Previously Presented) A medical system architecture as claimed in claim 1 wherein said further workstation has user rights associated therewith, and wherein said compression device transmits the compression packetized image data, or portions thereof, to said further workstation dependent on said user rights.

Claim 11 has been amended as follows:

11. (Currently Amended) A method for operating a medical system architecture having at least one imaging modality for acquiring image data representing examination images, a computer workstation associated with each imaging modality for processing the image data acquired from a subject by that imaging modality, said image data representing examination images ~~comprising~~ each having a slice thickness within the subject from which said image data are obtained, a communication network in communication with said computer workstation for transferring said examination images to a location remote from said computer workstation, a device for storing said examination images in communication with said communication network, and a further workstation in communication with said communication network for post-processing the examination images processed by the computer workstation, said method comprising the steps of:

generating raw data of a medical multi-component images image using said imaging modality, ~~as said image data composed of a plurality of said examination images;~~

compressing said raw data to generate compressed image data;

organizing and storing said compressed image data in packets and linking a parameter to the each packets ~~designating accessibility to the respective packets,~~ that specifies a slice thickness progression for that packet;

transferring the compressed image data to a decompression location; and

at said decompression location, decompressing the compressed image data to form said multi-component images image with each examination image therein having a selectively rotatable variable slice thickness dependent on said parameters parameter.

12. (Previously Presented) A method as claimed in claim 11 comprising entering requests into said further workstation about specific parameters associated with said image data in said packets.

13. (Previously Presented) A method as claimed in claim 11 wherein said further workstation has user rights associated therewith, and comprising analyzing said parameters to determine whether said decompressed image data can be presented at said further workstation dependent on said user rights.

14. (Previously Presented) A method as claimed in claim 11 comprising additionally transmitting supplementary information and requests from said decompression location to said further workstation.

15. (Previously Presented) A method as claimed in claim 11 comprising linking further parameters, in addition to said parameter that specifies a slice thickness progression, to the packets designating accessibility to the respective packets, and selecting said further parameters from the group consisting of a parameter defining progressive image resolution, a parameter defining progressive image quality levels, and a parameter identifying region of interest consistency.